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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,575	06/02/2006	Mi Rim Jin	DI-010	3611

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KIRK HAHN
14431 HOLT AVE
SANTA ANA, CA 92705

EXAMINER	
MI, QIUWEN	
ART UNIT	PAPER NUMBER
1655	

MAIL DATE	DELIVERY MODE
05/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/581,575	JIN ET AL.	
	Examiner	Art Unit	
	Qiuwen Mi	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections –35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 USC § 102 (b) as being anticipated by Yoshikawa et al (Chem Pharm Bull 39 (5): 1185-1188, 1991).

Yoshikawa et al teach the water extract from the aerial parts and fruits of *Luffa cylindrical* (Cucurbitaceae) (page 1185, left column, 1st paragraph) with hexane to remove the fatty oil (page 1187, left column, 2nd paragraph from the bottom). Fractions were repeatedly chromatographed on silica gel with $CHCl_3$-MeOH-H_2O (65: 35: 10).

Applicant is requested to note that it is regarded that "intended use" of a composition or product will not further limit claims drawn to a composition or product. See, e.g., Ex Parte Masham, 2 USPQ2d 1647 (1987) and In Re Hack 114, USPQ 161. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Therefore, the reference is deemed to anticipate the instant claim above.

Claim Rejections –35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa et al (Chem Pharm Bull 39 (5): 1185-1188, 1991) in view of Evertz (US 2,242,062), and further in view of Maurya et al (US 6,617,313).

Yoshikawa et al teach the water extract from the aerial parts and fruits of *Luffa cylindrical* (Cucurbitaceae) (page 1185, left column, 1st paragraph) with hexane to remove the fatty oil (page 1187, left column, 2nd paragraph from the bottom). Fractions were repeatedly chromatographed on silica gel with $CHCl_3$-MeOH-H_2O (65: 35: 10).

Yoshikawa et al do not teach hot-water soluble extract, chloroform, composition percentage, and food/beverage.

Evertz teaches water-soluble therapeutic principle may be extracted from watermelon seeds, rind, pulp, vine, or roots (page 1, left column, lines 25-30). The dried powder is mixed

with water, heated to boiling (page 1, left column, lines 55-60). The product may be given in milk or other liquids (food/beverage) (page 1, right column, lines 27-32).

Maurya et al teach extracting plant material with hot water. The resultant concentrate was partitioned between hexane, chloroform, propanol and butanol in that order, and then subjected to silica gel chromatography using hexane, chloroform, ethylacetate and methanol as solvent system (col 6, Example 2). Maurya et al also teach that the organic solvent used to remove the non-polar components is selected from the group consisting of hexane, pet ether and chloroform, and the polar solvent used to extract the aqueous layer is selected from ethyl acetate, propanol and butanol (col 5, lines 1-7).

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to combine the inventions of use hot water of Evertz; and organic solvent partition of Maurya et al in Yoshikawa et al for the following reasons.

It is clear from Evertz that heating water to boiling could coagulate colloidal protein matter (page 1, left column, lines 55-60), and the product is sufficiently pure for medicinal use with great success in the reduction of hypertension, urinary urgency, urinary frequency and other distressing symptoms, therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use hot water to extract *Luffa cylindrical* which is form the same family with water melon. It is further clear from Maurya et al that organic solvents of increasing polarity is used to remove non-polar components from water extract (col 4, lines 57-63), therefore it would have been obvious for one of ordinary skill in the art at the time the

invention was made to use hexane, chloroform, ethylacetate, butanol solvent before subjecting to silica get column. Since all of the inventions yielded beneficial results in pharmaceutical and food industry, one of ordinary skill in the art would have been motivated to make the modifications. The result-effective adjustment in conventional working parameters (e.g., determining an appropriate amount of the components within the composition, the ratio of the eluting agents) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

From the teachings of the references, it is apparent that one of the ordinary skills in the art would have had a reasonable expectation of success in producing the claimed invention.

Applicant is requested to note that it is regarded that "intended use" of a composition or product will not further limit claims drawn to a composition or product. See, e.g., Ex Parte Masham, 2 USPQ2d 1647 (1987) and In Re Hack 114, USPQ 161. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

Conclusion

No claim is allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry Mckelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MICHAEL MELLER
PRIMARY EXAMINER